Supporting Advanced Practice Provider Transition to Practice: A Theoretical and Evidence-Based Intervention

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Abstract

New graduate nurse practitioners and physician assistants, also known as advanced practice providers (APPs), face a significant number of challenges when entering professional practice. If the new graduate does not receive sufficient guidance and support during this transition to practice (TTP), they will likely experience significant psychological stress and anxiety. If an organization does not implement measures to address TTP, the new graduate is much more likely to leave the current position within the first two years of practice. An extensive literature review was conducted investigating the effects, and necessary components of an orientation program which supports the new graduate through TTP. Using Van Maanen & Schein's (1979) Theory of Organizational Socialization, a comprehensive new graduate orientation program was designed and implemented in large multi-specialty practice. Initial results suggest that this program improves both the perceived organizational support felt by the new graduate, as well as the new graduates' affective commitment to the organization. Improvements in both these dimensions have been shown to decrease turnover intention and increase retention of the employee.

Keywords: Nurse Practitioner, Physician Assistant, Advanced Practice Provider, Transition to Practice, Orientation, New Graduate

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The transition from formal education to early career is a tumultuous time for any new graduate. The transition for healthcare providers means now caring for patients independently and is an anxiety inducing time for both the provider and their employer. Physicians have largely overcome this problem with complex and lengthy residency programs. New graduate registered nurses often enter practice with comprehensive orientation programs in addition to their formal education. In contrast, Physician Assistants and Nurse Practitioners, collectively known as advanced practice providers (APPs), often enter practice with no orientation, socialization or other methods to promote successful transition to practice.

Background

The preparedness of new college graduates entering the professional world has long been questioned across many fields (Nicholson & Arnold, 1991; Holton, 2001). New graduate APPs are not immune from this challenge. The APP enters their new practice having gone from expert student to novice, inexperienced professional. Without guidance to navigate this time of transition, the APP can experience alterations in professional identity, loss of confidence, and impaired role development (Barnes, 2015). New graduate nurse practitioners commonly express themes of loss of control, anxiety, feelings of isolation, disconnectedness, role ambiguity and a sense of disequilibrium during the first year of practice (Kelly & Matthews, 2001; Hart & Macnee, 2007). Commonly reported is a lack of guidance and support, uncertainty about clinical abilities, feelings of being unimportant to the practice and a general absence of educational resources (Fenwick, et al., 2012; Hart & Macnee, 2007). Frustration and disappointment with the care they were able to provide were also common (Fenwick, et. al., 2012). Many experience feelings consistent with a transient imposter syndrome, a sense of "intellectual phoniness" and a fear of being found out and forced to abandon their profession (Prata & Gietzen, 2007).

Organizations employing advanced practice providers have a significant incentive to promote successful transition to practice. Lack of preparation and infrastructure for integrating APPs into clinical practice often leads to attrition rates slightly above 30% in the first two years of practice (Sullivan-Bentz,

et al, 2010). This turnover is extremely costly to the organization. Replacing the APP can cost $20,000 to $123,000 depending on the role (Misra-Hebert, Kay and Stoller, 2004). This cost does not include any potential lost productivity revenue, decreased clinical morale and potential patient dissatisfaction.

Numerous solutions have been proposed to create successful transitions to practice. One of the most notable came from the 2010 Institute of Medicine (IOM) report, *The Future of Nursing*. The IOM (2010) suggested that there should be an increase in the number of advanced practice residency programs. While this idea is viable, it is costly and protracted as well as difficult to deploy in this time of healthcare change (Wiltse Nicely & Fairman, 2015). Healthcare organizations will be well served to develop a different way to create a successful transition to practice for APPs. The purpose of this project was to evaluate the effect of a comprehensive orientation program on the experience of transition to practice.

Internal Evidence

In 2011, a multispecialty oncology practice was created as part of a larger integrated healthcare delivery system (IHDS) in the southwestern U.S. The IHDS has not yet developed strategies to appropriately recruit APPs and effectively integrate them into practice. As a result, APPs received no formal training or integration activities upon joining the practice. The lack of structure led to hesitation by the practice to hire new graduates. In the few cases the practice had previously hired new graduate APPs, the experience had been "extremely nerve-racking and almost malignant in stress creation (L. Kocemba, personal communication, September, 2015)." Additionally, this led APPs to question their abilities as a provider and consider returning to work at lower levels of practice (K. Dearing, personal communication, August, 2015). Similarly, data from a survey of recent Arizona State University nurse practitioner graduates demonstrated that 66% of new graduates felt significant stress or anxiety regarding their work for greater than three months after employment, and only 44% of respondents reported having a formal orientation period (Farfour, 2016).

This inquiry has led to the relevant PICO question: "For new graduate Advanced Practice Providers(P), how does a structured orientation model (I) compared to no formal orientation (C) affect transition to practice(O)?"

Literature Review

Search Strategy

An exhaustive literature search pertaining to the above clinical question was performed. The following research databases were used to gather evidence: Cumulative Index to Nursing and Allied Health Literature (CINAHL), US National Library of Medicine (PUBMED), Psychology Information (PsycINFO), Cochrane Library, Proquest ABI/INFORM, Institute of Education Science (ERIC) and Proquest Aerospace Database. The latter three databases were chosen as business, education and the aerospace/military fields all are perceived as having a high initial investment into their new hires and were suspected to have some valuable insight in practices for socializing new graduates. Keywords included *nurse practitioner* (NP), *physician assistant* (PA), *orientation, training, new graduate* (NG), *transition, new employee* (NE), *socialization, organizational entry*, and *development.*

Critical Appraisal

The literature describing interventions to guide successful promotion of transition to practice for APPs is sparse. The evidence resulting from the new mass of post-graduate training programs is just now becoming available but there is scarce data supporting other interventions at the organizational level. Very little of the advanced practice literature focused on interventions to improve TTP, but instead it described the lived experience of APPs during transition. To overcome this challenge, evidence was reviewed from different professions including nursing, management, and engineering. The chosen twelve studies varied in design from quasi-experimental to qualitative and were published from 2000 to present (Appendix A). All of the articles sought to understand interventions which improve the experience of newcomers to an organization or profession. Three theoretical frameworks were utilized frequently: Van Maanen & Schein's (1979) theory of organizational socialization; Meleis' (2000) transition theory and Kramer's (1974) reality shock theory.

Eight of the studies included were quantitative and utilized quasi-experimental, longitudinal surveys and cross sectional survey designs (Appendix A). The phenomenon of transition to practice is not one that can be studied in a randomized controlled setting. Too many variables influence the transition. Three of the studies (Newhouse et al., 2007; Friedman, Cooper, Click & Fitzpatrick, 2011; Klein & Weaver, 2000) had a control group, although none were randomized. The outcomes measured were heterogeneous but included transition scores, retention, turnover and turnover intention, job satisfaction, job performance and perceived support and socialization (Appendix B). Statistical analyses were also heterogeneous. None of the studies chosen had inherent flaws in the study design or demonstrated outright bias.

The remaining four studies were qualitative descriptive studies. All four focused on understanding the common themes among transitions in professional practice, including both the negative experiences as well as the supportive factors. Focus groups and semi-structured interviews were utilized evenly. All of the studies had moderate sample sizes with twenty-one to eighty-one participants. Four different types of data analysis were used. All studies had strong credibility, dependability and confirmability. Transferability could appear limited but this is refuted by the common themes seen across professional paradigms. Common themes include the importance of mentors and support networks at work, the importance of regular feedback, and the positive perceptions of formal learning strategies.

Synthesis

Evidence directly related to the effect of a standard orientation on APP transition to practice is limited. However, there is consistency when we compare the findings of the APP TTP studies (Barnes, 2015; Kelly & Mathews, 2001) to that of their nursing and business counterparts. Formal socialization and orientation tactics are valued by newcomers, especially when they include the participation of a dedicated mentor (Strauss et al., 2016; Kelly & Matthews, 2001; Korte, Brunhaver & Sheppard, 2015; Milligan, Margaryan & Littlejohn, 2013). Orientation programs confer increased organizational commitment and embeddedness, job satisfaction and at least short term improvement in job performance (Ashforth, Sluss & Saks, 2007; Strauss et al., 2016; Allen, 2006). Finally, and arguably most important

from an organizational perspective, orientation programs seem to increase retention and similarly reduce turnover and turnover intention (Newhouse, Hoffman, Suflita & Hairston, 2007; Strauss et al, 2016; Friedman, Cooper, Click & Fitzpatrick, 2011; Allen, 2006).

Evidenced Based Practice Model

The Academic Center for Evidence-Based Practice (ACE) Star Model (Appendix C) was utilized as the guiding framework for the project. The model demonstrates the "conversion of research findings from primary research results, through a series of stages and forms, to impact on health outcomes by way of evidence-based care (Stevens, 2012)." The ACE Star model drives evidence based change through a five-prong approach from discovery research to process and outcome evaluation. The model was chosen as it provides a staged progression to implementing change but is not so structured as to prescribe a strict step wise approach. It allows for flexibility and returning to previous stages as needed. As the TTP program itself had to be designed from multiple different sources of evidence, a significant amount of knowledge transformation was necessary and the ACE Star model was an appropriate fit.

Guiding Theory

The Theory of Organizational Socialization developed by Van Maanen and Schein (1979) was chosen to guide the program development. Van Mannen and Schein (1979) defined organizational socialization as the "process by which an individual acquires the social knowledge and skills necessary to assume an organizational role (p.211)." The theory supposes that organizational socialization activities can be grouped into one of six different set of tactics (Appendix D) or "the ways in which the experience of an individual in transition from one role to another are structure for him by others in the organization (Van Maanen & Schein, 1979: 34-35)." The tactics can either be more institutionalized, collective, formal, sequential, fixed, serial and investiture, or more individualized, individual, informal, random, variable, disjunctive, and divestiture. Depending on the organization and leaders' approach to each tactic, the newcomer can have a behavioral response which helps clarify their role within the organization, reduce uncertainty and ultimately encourages either behavior conforming to the status quo (custodial role response) or taking an innovative approach and challenging the norm (innovative role response). While

Van Maanen & Schein's theory did include the testing phase, many different researchers have carried the work forward. Saks, Uggerslaev & Fassina (2007) tested different socialization tactics among new graduates from various fields and discovered that collective, formal, sequential and investiture tactics decrease role ambiguity while serial tactics decrease intentions to quit (Appendix D). Ashforth, Sluss and Saks (2007) found that investiture was positively related to job satisfaction and organizational identification and negatively related to intentions to quit. Similarly, Allen (2006) found that investiture and serial tactics decrease turnover intention while collective, investiture and variable tactics promote job embeddedness. Stress was found to be reduced when using collective and formal tactics, while performance was improved with use of sequential and fixed tactics (Ashforth & Saks, 1996). Based on these findings, an ideal TTP program would contain collective, formal, sequential, serial, fixed, variable and investiture tactics to promote feelings of support and organizational embeddedness, improve job satisfaction and performance, and decrease stress.

Program Design

Prior to determining any impact, a comprehensive transition to practice orientation program needed to be designed. Success of the TTP program hinges on the ability to address the themes seen in the literature, including addressing loss of control, role ambiguity, and feelings of isolation as well as promoting opportunities for feedback, relationships with peers and support/mentorship provided to the new graduate (Edwards, Hawker, Carrier & Rees, 2015). Each of the different components of the program was designed to address one of these themes as well as to provide an optimal balance of the targeted socialization tactics (Appendix E).

Orientation Objectives

Tan, Au, Cooper-Thomas and Aw (2016) discuss that creating learning goals for a newcomer to an organization enables the newcomer to be attuned to various aspects of the organization, adopt strategies that enable the development of new skills, and are necessary to promote adjustment to the new role. Clearly defined orientation objectives were developed for new graduates joining the practice,

containing both collective and individual components, and were intended to frame the orientation period and give the APP guidance on where to focus their efforts. Ten universal objectives were developed, which remain constant across new graduate clinical subspecialties (Appendix F). An example of a universal objective includes: "Develop appropriate diagnostics and therapeutic management plans as appropriate in the care of the oncology patient." In addition, individual objectives were chosen for each new graduate based on the subspecialty they would be working in. The syntax of each objective was very carefully chosen. Basics of the subspecialty which needed to be mastered sooner to be successful were translated into objectives such as: "Understand and apply fluid resuscitation principles in the post-operative setting." In contrast, those principles which the APP was not expected to have mastery of, but simply begin to be aware of, were worded with much less finality: "Begin to understand the colon cancer staging system." The list of objectives was determined by the investigator as well as the APPs clinical mentor. Role specific objectives ranged in number from twenty to forty (Appendix F). By providing both common and individualized objectives, the new graduates have a more clearly defined role which is unique to them (Cable, Gino & Staats, 2013).

Mentorship

The necessity of appropriate and available mentorship has been shown to be an enormous component of a successful transition for both NPs and PAs (Hart & Bowen, 2016; Cusson & Strange, 2008; Polansky, 2011; Sullivan-Bentz, et al, 2010; Barnes, 2015). Mentors help model the role to the new graduate as well as act as a champion for the new graduate growth. Effective mentorship has been shown to contribute to a significant decrease in role ambiguity, thereby decreasing uncertainty and stress in relation to professional identity (Jones, 2004). Mentorship is both a serial and investiture socialization tactic. Doerkson (2010) determined that the best mentoring comes from those with the same credentials in a similar role. However, this is not always feasible due to practice size, various clinical focuses and other factors. To overcome this limitation, each new graduate was assigned, at minimum, one clinical mentor in their same area of subspecialty. If these mentors did not have the same credentials, the new graduate was also assigned an "APP Partner" who provides profession specific knowledge and support. As effective

mentorship is important in improving job satisfaction and performance for the mentee (Brinkley & Brod, 2013), each mentor was provided a "tip sheet" to help facilitate good communication and guidance (Appendix G; Eller, Lev & Feurer, 2014).

Clinical & Organizational Education

The traditional role of an onboarding or orientation program is to teach new employees "how things are done around here" and to highlight company culture and values (Cable, Gino & Staats, 2013). This is accomplished through attendance at the IHDS' New Provider Orientation; a two-day program which reviews pertinent policies, the mission and values of the organization, medical staff bylaws, strategic clinical initiatives and the code of conduct. Following this course, all APPs also attend system electronic health record education, complete several learning modules covering topics like federal compliance and fraud prevention, and have an initial meeting with their direct supervisor to review practice specific policies. These are the collective and fixed socialization tactics common to all new providers in the IHDS.

Fixed, clinically focused education is also necessary. All new graduate APPs must complete several different online basic oncology modules and complete training in the protection of human subjects. This provides a solid base of knowledge in oncology and clinical trials. These modules can be adapted based on the practice specialty. Finally, in a variable but sequential manner, each new graduate is assigned weekly reading assignments by their mentor which are intended to further their role specific knowledge and assist in achieving the orientation objectives (Appendix F). Polansky (2011) found that nearly all PA's provided this type of formal education in practice felt that it was valuable and improved their early career experiences.

Progressive Responsibilities & Weekly Goal Setting

To reduce stress and anxiety, the new graduates were given a clearly defined timeline of the expected progression of responsibilities (Appendix F). This progression, a sequential socialization tactic, begins with time shadowing other providers, progresses to supervised activity, to semi-independent

functions, where the mentor remains nearby, and finally largely independent practice by the end of twelve weeks. This timed progression allows the APP to feel confident in where they are headed and what they have accomplished so far, which is crucial to a successful transition (MacLellan, Leavett-Jones, & Higgins, 2015). The progression of responsibilities is tied with expected weekly goal setting. At the beginning of each week, the APP is instructed to set a realistic goal, like "Complete documentation on five patients daily" or "Understand gram negative antibiotic selection". The APP then shares that goal with their mentor, who helps modify the goal if too lofty and ensures that the APP has the opportunity to achieve this goal within the week. This is designed to give the new graduate an objective measure of their own increasing proficiency as well as build and protect their professional confidence (MacLellan, Levett-Jones & Higgins, 2015).

Practice Immersion

Two other common themes in the literature are feelings of isolation and lack of knowledge about the resources available (Cusson & Strange, 2008; Kelly & Matthews, 2001; MacLellan, Levett-Jones & Higgins, 2015). Also, Marincic & Ludwig (2011) reported a statistically significant difference in entry-level PAs' feelings of competence in collaborating with other care providers to achieve patient-centered care. As inter-professional practice and appropriate resource utilization are increasingly important in healthcare today, the TTP orientation had to address these themes. During the first six weeks of the program, the APP was allocated time with other members of the care team with whom they would have a future collaboration. This included other providers in different subspecialties like medical oncology, gastroenterology, or others with whom they would frequently collaborate. The practice immersion included a full day with rehab services, learning the scope of what services physical therapy, occupational therapy, and speech therapy were able to offer. The APPs also had time with specialty nursing services, like wound care and case management, and time with their pharmacy colleagues. This was designed to increase the APPs feelings of belonging to a team, ability to effectively collaborate with other disciplines,

promote open communication and make the APP more aware of the resources available to them as they begin to work with patients.

Opportunities for feedback

New graduates commonly reported a lack of confidence in their actions and their acquired knowledge (Cusson & Strange, 2008; MacLellan, Levett-Jones & Higgins, 2015; Barnes, 2015; Prata & Geitzen, 2007). Regular opportunities for feedback and progress evaluation, as well as reassurance can help APPs overcome these challenges. A progress meeting is scheduled every four weeks during orientation and includes the APP, their primary mentor and the APPs direct leader. Prior to the meeting, all three attendees are asked to consider an area of success for the APP as well as one area of opportunity. The meeting begins by asking the APP about the areas with which they feel more confident, learning insights gained, and that for which they are most proud. The leader and mentor then share their perception of the successes of the APP. The conversation then turns to areas of opportunity but they remain framed positively and all participants share how they are going to support the APP to achieve success. These meetings, an investiture tactic. serve as a critical tool to ease the transition from new graduate to professional and help facilitate confidence and growth (Goodwin-Esola, Deely and Powell, 2009).

Evaluative Questions

Four evaluative questions were designed to assess the impact of the program on transition to practice. First, does the theory based orientation program impact the organizational support felt by the APP? Second, does the program influence role clarity/ambiguity? Third, does the orientation program promote feelings of professional competence for the APP? Finally, does the program impact the affective organizational commitment of the APP?

Methods

Evaluation of these questions and the programs efficacy was measured using four validated scales. Each scale has widely established and accepted validity and reliability and all questions were answered on a Likert scale.

The perceived organizational support scale (POSS) seeks to quantify the degree of support and assurance felt by the employee that the organization will provide the aid to carry out one's position effectively and to deal with stressful work conditions (Rhoades & Eisenberg, 2002). The Role Ambiguity Scale was used to assess a lack of necessary information regarding role expectations (Rizzo, House and Lirtzman, 1970). The perceived competence scale is a four-item questionnaire which is customized to the domain being studied which was used to measure the APPs feelings of having the level of knowledge, or proficiencies, needed to deliver an effective work product (Williams & Deci, 1996). Finally, the affective commitment scale (TCM-ACS), one of three subscales in the TCM Employee Commitment survey, was chosen to measure the employee's emotional connection to and identification with the organization (Meyer & Allen, 1991). Higher levels of affective commitment have been repeatedly linked to lower levels of turnover and turnover intention (Zargar, Vandenberghe, Marchand, & Ayed, 2014; Vandenberghe & Bentein, 2009; Bartley-Daniele, 2014).

These four scales were combined with two initial screening questions and ten demographic questions to create a thirty-eight question survey (Appendix H). Prior to data collection, institutional review board approval was sought and exemption was granted. No risks to participants were identified other than those of normal daily activities. The survey was hosted using Qualtrics and participants received an invitation to participate via email. No identifiable data was collected, including IP addresses. Data was analyzed using SPSS 23.

Results

Both a comparison (non-TTP) and intervention (TTP) cohort were created. Twenty-nine new graduate advanced practice providers were identified throughout different practice sites in the IDHS. All had completed their formal education within the preceding twelve months. All were sent an invitation to participate, regardless of practice site, and twenty surveys were returned. The non-TTP cohort had fifteen respondents, twelve of whom qualified for inclusion. Two participants were excluded due to having had a

previous job as an advanced practice provider, and one was excluded as they had participated in a formal post-graduate training program. Five respondents new-graduate APPs were hired by the oncology practice during the project time. These five were the TTP cohort, who participated in the transition to practice orientation, and were surveyed between sixteen to eighteen weeks of employment. Both cohorts contained PAs and NPs and both were primarily female and Caucasian (Appendix I). The TTP cohort was completely in specialty care settings, while the non-TTP cohort had nearly thirty percent of respondents in primary care. In the non-TTP cohort, six respondents indicated that they had zero components of a formal orientation program upon hire, three had clear orientation objectives, four had a formal orientation schedule, one had a dedicated mentor and two were given an expected progression.

Each of the four tools was scored for the respondents and the two cohorts were compared. On observation, there appeared to be higher average scores, with smaller deviation, for all four of the assessment tools in the TTP cohort (Appendix J). The TTP cohort had markedly higher average scores, greater than ten points, on both the TCM-ACS and the POSS, while the PCS and the RAS had less variation (Appendix J). It should be noted that, despite the common themes of self-doubt and feelings of incompetence, both of these groups scored highly on the PCS with only one respondent scoring below the neutral midpoint of sixteen. This was similarly observed with the RAS, with only one respondent below the midpoint.

Although the scores between the two groups were found to have normal distributions, the groups did not have equal variance and were not randomized so the assumptions for a standard t-test could not be met. A Mann-Whitney U test was used to determine any statistical difference between the cohorts (Appendix K). The cohort which participated in the TTP program was noted to have statistically significant higher scores on both the TCM Affective Commitment scale ($Z= -2.54$, $p=.009$) and the Perceived Organizational Support scale ($Z=-2.75$, $p=.004$). There was no statistically significant different between the scores of the two cohorts on the Perceived Competence scale ($Z=-.053$, $p=.96$) or the Role Ambiguity Scale ($Z=-1.43$, $p=.16$).

Discussion

The generalization of these results is clearly impaired by the small intervention group size. Recruitment into the intervention group was less robust than anticipated due some financial difficulties of the greater IHDS, which imposed a brief hiring freeze, significantly slowing the expected recruitment of new providers into the practice. Likewise, restructuring within other areas of the IHDS eliminated the feasibility of conducting the TTP program at other practice sites. More participants will be needed to create a stronger assessment of the program. It is also difficult to rule out the influence of other factors, such as organizational culture, leadership structure or relationships with peers, on the experience of transition to practice. However, the initial results of this small cohort are very promising for organizations. There is clearly a difference in support felt by the new graduates who have participated in the TTP program versus those who have not.

Statistically significant increases were noted in the TTP cohort for both affective commitment and perceived organizational support (POS) which has positive implications for the organization. POS is an antecedent to affective commitment and is positively related to individuals feeling their organization is fair, has supportive leadership, and is willing to listen to their individual needs (Rhoades & Eisenberger, 2002). In turn, the employee has a greater affective commitment to the organization, is much less likely to quit, is much more positive while at work and is likely to have improved job performance (Rhoades & Eisenberger, 2002). This improved affective commitment and associated decrease turnover intention is important to the concept of TTP as the hallmark of a failed transition is turnover, either to another organization or return to a previous lower level of practice (MacLellan, Levett-Jones & Higgins, 2015). Long term follow up will be needed to assess if this is a transient elevation in scores and if the retention rates of the TTP cohort are longer than those of the non-TTP cohort.

Interestingly, both cohorts scored highly on the PCS and RAS. The role ambiguity scale mean was 32.6 out of a possible 42. This suggests that both cohorts have generally good role clarity. These higher scores could likely be contributed to the IHDS' stance that advanced practice providers be utilized

in a manner that is appropriate to the scope of their licensure and training. The IHDS operates in a lean business model so there is not an abundance of role overlap in most practice settings. However, given that some of the non-TTP respondents were surveyed later than twelve to eighteen weeks into practice, it could be that these scores are falsely elevated after time has elapsed and roles have been further clarified.

The overall perceived competence scale mean was 22.5 out of 28 points, suggesting stronger feelings of professional confidence among these groups. Whether there is something in the IHDS' culture that is contributing to this increased feeling of competence or if formal education is better preparing graduates for transition would need to be explored further. However, these scores do seem to compare favorably with Hart & Macnee's (2016) research in which nearly forty percent of a large nurse practitioner cohort stated they felt "generally well prepared for practice." Similarly, Farfour (2016) found that over fifty percent of new graduate NPs began to feel confident in the role within the first six-months practice.

Given the findings of this small cohort, and the more recent surveys of new graduates perceived competence, one could question if it is truly the competence of the new graduate APP that a TTP program should focus on, or if it should instead be centered around supporting the new graduate. In an effort to improve transition to practice, post-graduate training programs are becoming more common-place in the United States. Carolinas' Health System, a leader in post-graduate NP residencies, states the mission of their program is to "develop foundation specialty-specific skills and knowledge (Taylor, Broyhill & Burris, 2017)." However, does this focus truly benefit the new graduate in their first, independent role? The APP is gathering more medical and clinical knowledge in these programs, but are they truly preparing them for the realities of practice? Data does not yet exist to answer these questions, but it seems that there is still the potential for substantial transition shock after post-graduate training. In reality the availability post-graduate training programs are unlikely to meet the current workforce demand for NPs and PAs in the near future. As such, it is in the organizations best interest to provide a structured transition to practice program for new graduate advanced practice providers.

Sustainability & Future Opportunities

The design and implementation of the TTP orientation program has identified an area of need within the IHDS and is currently being viewed as a likely solution to improve transition throughout the system. Five factors influence the sustainability of any program; the ability to modify or adapt the program, having a champion, fit with the organization's mission and procedures, perceived benefits to staff and support from stakeholders (Shceirer, 2005). The transition to practice program has been developed to be adaptable to a wide range of specialties and care settings. There is a universal structure and multiple tools built to customize the content of the program to the unique needs of the role the new graduate is filling. For posterity, all of the tools have been saved to multiple digital sources along with clear instructions on utilization. The program has been disseminated to two other practices within the IHDS, that anticipates utilizing it in the late spring. Initial feedback was positive with appreciation for the clear guidelines developed and the ease of adapting the program. The TTP orientation program has many different champions in the oncology practice but also has the support of the system Chief Nursing Officer, the associate Chief Nursing Officer of the academic medical group and the Chief of Clinical Services for the community medical group. This support senior system level has created a unique future opportunity. In an effort to deploy the program further, the IHDS has created a steering committee with an initial deliverable being dissemination and expansion of the TTP orientation program.

Conclusion

Transition to practice can be a time of high stress, self-doubt and confusion for the new graduate advanced practice provider. Organizations have a vested interest in promoting a smoother transition for these APPs. Many small, low cost interventions can help support the APP, and also increase organizational embeddedness and decrease turnover intention which are directly beneficial to the organization. While further testing is needed, this structured orientation program serves as a starting point to assist organizations successfully support the APP during the transition to practice.

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Appendix A

Table 1

Literature Review Evaluation Table

Quantitative Research								
Citation	**Conceptual Framework**	**Design/ Method/Purpose**	**Sample/Criteria**	**Major Variables and Definitions; or hypotheses tested**	**Tools**	**Data Analysis**	**Findings/ Results**	**Level of evidence/ Decision for Use**
Rush, Adamack, Gordon, Janke & Ghement (2015). Orientation & transition program component predictors of NGN workplace integration Country: Canada Funding: Grants from the Michael Smith Foundation for Health Research Bias: None Noted	NS (Meleis' Transitions Theory)	Design: Cross-sectional survey Method: Administration of an online survey with 5 sections: demographics, orientation to the employer/nursing unit, general transition, specific new graduate transition program and the Casey-Fink Graduate Nurse Experience Suvey. Purpose: Examine the relationships between selected components of NGN transition programs and transition experiences	Sample: n=245 NGNs Demographics: 90.6% Female; 46.9% NGNs working more than a year; 39.2% working for 6 mon to 1 year; 12.7% less than 6 months; Orientation 94.89% had formal orientation, length of orientation <2weeks-44.8%; 2-4 weeks-27.6%; 4+ weeks-27.6% Inclusion Criteria: NGNs in British Columbia who graduate in 2010; working in acute care Exclusion Criteria: Work setting out of acute care; NGNs graduating outside of 2010	IV 1: Presence of a formal orientation phase IV 2: Orientation phase- <2 weeks IV 3: Orientation 2-4 weeks IV 4: orientation > 4 weeks IV 5: Hours work in first 2 weeks DV 1:NGN transition scores DV 2: organizing/prioritizing scores DV 3: communication/leadership scores; DV 4: support scores; DV 5: Professional satisfaction scores; DV 6: stress scores	Casey Fink Graduate Nurse Experience Survey; SPSS	Descriptive statistics for demographics; ANOVA with Tukey's post-hoc text; *t* tests; chi squared; regression analysis	IV 4= DV 1 Significantly higher scores. P= .0002; mean=76.46; SD 8.04 No significant difference between DV 1 for IV 2 & IV 3 IV 3= significantly higher scores DV 3: p=.0152 DV 4: p=<.001 DV 5: p= -.004 IV 1= significantly higher DV 1 Mean = 74.2 v 68.93 p <.0001 95% CI 3.16-7.39 IV 1=significantly higher DV 2: p=.0254 DV 3: p=.002 DV 4: p< .001 DV 5: p<.001 IV 5> 49hrs: significantly higher DV 1 p=.006 CI 95% 1.05-6.02	LOE: III One of few studies to specifically look at orientation as part of transition. Only orientation > 4 weeks made an impact on TTP. Also highlighted importance of early immersion in clinical work Weaknesses: Data collection only at one point in time, hard to tell if transition experience remained impacted by orientation. Low response rate from initial pool of 1008 NGNs identified. NGNs without orientation phase made up less than 10% of sample. Could have easily set up quasi-experimental design with control group of no orientation vs orientation group.

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Citation	Conceptual Framework	Design/ Method/Purpose	Sample/Criteria	Major Variables and Definitions; or hypotheses tested	Tools	Data Analysis	Findings/ Results	Level of evidence/ Decision for Use
Barnes (2015). Exploring the factors that influence nurse practitioner role transition. Country: United States Funding: Grant from Sigma Theta Tau Bias: None noted	Meleis' Transitions Theory	Design: Cross-Sectional Survey Method: A convenience sample found at national NP conference, recruited via flyers and posters and then given an anonymous questionnaire Purpose: To examine the relationship between NP role transition, prior RN experience and a formal orientation	Sample: n=352 Mean age 47.3; 88.6% female; 81.8% white; 86.6% had MSN; 47.9% FNP; 57.1% working in outpatient Inclusion Criteria: Practicing in direct patient care, hold a graduate degree, speak and read English, and have been working as NP for at least 6 m Exclusion Criteria: Practicing before 1990.	IV 1: Prior RN experience IV 2: Receiving a formal orientation in first NP position DV 1: NP role transition- score determined by the NPRTS scale.	Nurse Practitioner Role Transition Scale (NPRTS); SPSS	Sample *t* tests; Multiple regression analysis	IV 1 : r -.08 p .12 B –.01 SE .01 B -.08 t -1.56 p .12 IV 2: r .29 p< .001 B 6.24 SE 1.11 B .29 t 5.61 p .000 If IV 2 present, DV higher t350=-5.62 p< .001	LOE: III Although a weaker study, does lend evidence to the idea that structure at onboarding helps improve role transition. Strengths: NPs who received structured orientations have easier transitions and are more satisfied with their roles. Large sample size. No bias noted. First study focusing on these IVs. Weaknesses: Large portion of NP transition effected by other factors; convenience sample; self-reported data; NPs with various years of experience, transition could have been forgotten.
Newhouse, Hoffman, Suflita, Hairston (2007) Evaluating an innovative program to improve NGN socialization into the acute care setting. Country: USA Funding: Grant from the Nurse support program, Maryland Health Services Cost Review Commission Bias: None noted	Donabedian's method for assessing the quality of medical care	Design: Quasi-experimental, post-test only, control group Method: NGNs who completed SPRING were compared to NGNs who did not; three survey instruments were used and analyzed; as well as retention rates. Data collected over a 3-years Purpose: Tests whether an internship program improves new nurse graduate retention, sense of belonging, org commitment, and anticipated turnover	Sample: Baseline data n=73; Post-Test at 6 months n=237; Post-Test at 12 months n=212 Inclusion Criteria: NGNs at a large academic center participating in SPRING; comparison group NGNs not participating in SPRING Exclusion Criteria: RNs in practice <1 year Attrition: 10%	IV 1: Orientation program (SO vs SPRING) DV 1: Org Commitment DV 2: Sense of belonging; DV 3: anticipated turnover DV 4: Retention	Organization Commitment Questionnaire; Modified Hagerty-Patusky Sense of Belonging Instrument; Anticipated Turnover Scale; SPSS	ANOVA with post-hoc test	DV 1: no significant difference DV 2: no significant difference between groups DV 3 @ 6 m p= .009 DV 4 @ 12 m: x^2 6.032 p .014 Descriptively higher @ 18 & 24 m.	LOE: II Although the paper describes a nurse residency program, it is truly a year-long orientation program as the expected outcome at the end of the year is that the RN will remain employed at the same institution. Shows that a transition program makes a significant difference on turnover and turnover intention. Strengths: Quasi-experimental design, Presence of a control group; Used proven instruments; Measurements at multiple time points. Weaknesses: No demographic data collected; low baseline data responses;

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Citation	Conceptual Framework	Design/ Method/Purpose	Sample/Criteria	Major Variables and Definitions; or hypotheses tested	Tools	Data Analysis	Findings/ Results	Level of evidence/ Decision for Use
Strauss, Ovnat, Gonen, Lev-Ari, Mirahi (2016) Do orientation programs help new graduates? Country: Israel Funding: NS Bias: None Noted	Kramer's Reality Shock Theory	Design: Cross-Sectional Survey Method: Purpose: To determine whether NGN transition included a structured orientation program and to assess the effectiveness of the program from the NGNs perspective	Sample: 79 NGNs from 3 different hospitals in Israel; 89% female; mean age 31; 78% had up to 2-years experience Inclusion Criteria: Nurses who graduated a maximum of 5 years ago	IV 1: Structured orientation program DV 1: JS DV 2: Ability to adapt to the ward/job DV 3: Support-perceived support NGNs received DV 4: Retention-whether the orientation program influenced staying with employer	Survey developed by the authors but tested for internal consistency; SPSS	t tests; regression analysis	DV 1: t .86 p<.001 r^2 .28 p<.05 DV 2: t .82 p<.001 r^2 .19 p>.05 DV 3: t .86 p< .001 r^2 .46 p<.001 DV 4: t .05 p>.05 r^2 -.08 p>.05	LOE: III Simple study looking at the value of orientation from the NG perspective. Strengths: Simple tailored study with high predictive value; survey tested for internal consistency Weaknesses: Small sample; Respondents answering survey from memory as many had been multiple years out from orientation
Friedman, Cooper, Click, Fitzpatrick (2011) Specific NGN critical care orientation: Retention and financial impact. Funding: NS Country: United States Bias: None Noted	Benner's Novice to Expert Theory	Design: Retrospective, descriptive design Method: Purpose: To determine the effect of a specialized orientation program (CCNFP) on retention of NGN and the net cost of this orientation program	Sample: n= 90 NGNs at two tertiary care hospitals; 30 NGNs hired in 2004 undergoing standard orientation; 60 NGNs hired in 2007 with CCNFP orientation. Mean age 30; 87% female Inclusion Criteria: Acceptance to the CCNFP by rigorous 3 stage interview process	IV 1: Orientation program (SO vs. CCNFP) DV 1: Retention at 3 months DV 2: Retention at 6 months DV 3: Retention at 9 months DV 4: Retention at 12 months DV 5: Length of employment DV 6: Cost of orientation program DV 7: Annual Percent Turnover DV 8: Savings based on turnover rates	SPSS, historical HR data	Pearson Chi-squared; two sample t-test	DV 1 x^2 6.86 df 1 p .009 DV 2 x^2 2.14 df 1 p .144 DV 3 x^2 8.00 df 1 p .005 DV 4 x^2 5.95 df 1 p .015 DV 5 t -2.26 p .03 m 262.90 (sd 126.38) vs m 321.67 (sd 92.74) DV 6 CCNFP increased expenditure by $954, 718 DV 7 12 % vs 6.2% t 1.22 p .247 DV 8 Potential savings estimate of $1,367,100	LOE: V Turnover reduction not statistically significant but significant in practice and significant cost savings. Despite weaker study design, one of few studies to put a price on the actual orientation program as well as the cost savings. Cost savings was calculated conservatively and potential savings for APPs likely much higher. Program used is a 52 week long program, weeks 26-52 are independent work. Weeks 1-9 simulation, certification course, professional seminars and RN mentorship. Weeks 10-26 preceptorships shifts; weekly meetings/educational sessions and completion of a clinical pathway Study was limited by a small convenience sample.

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Citation	Conceptual Framework	Design/ Method/Purpose	Sample/Criteria	Major Variables and Definitions; or hypotheses tested	Tools	Data Analysis	Findings/ Results	Level of evidence/ Decision for Use
Ashforth, Sluss, Saks (2007). Socialization tactics, proactive behavior, and newcomer learning. Country: United States Funding: Funding by a Department of Management Fellowship at Arizona State University Bias: None Noted	Van Maanen & Schein's Theory of Organizational Socialization	Design: Longitudinal Survey Method: Survey administered at three different time intervals; 1 week before graduation, 4 months after the participants start date, and 7 months after the start date. Purpose: To examine how soc processes jointly affect soc content and adjustment	Sample: n=150; tested for and ruled out attrition bias; 52% female; from a wide variety of occupations and industries Inclusion Criteria: Engineering and business graduates from 2002 to 2003; employed full time post-graduation Exclusion Criteria: Continuance of jobs held before graduation, plans to enroll in graduate school, discontinued employment during survey period, international graduates returning to their home country.	H1: Institutionalized soc(a)/Investiture(b) will be positively a/w nc learning. H2: Nc proactive behavior will be positively a/w nc learning. H3: Nc learning will be positively a/w performance, js, and org identification and negatively a/w intentions to quit. H4: The process of soc will be directly and positively a/w performance, js and org identification, and negatively a/w intentions to quit. H5: Institutionalized soc will be negatively a/w role innovation and proactive behavior will be positively a/w role innovation.	Jones' measure of formal tactics; Ashforth & Saks measure of investiture; Ashforth & Blacks behavior scale; Morrison's measure of socialization	LISREL; Path coeffecients	H1a: P .17 p<.05 H1b: P .07 not significant H2: P .37 p<.01 H3a: P .32 p<.01 H3b: P .18 p<.05 H3c: P .18 p<.05 H3d: P -.03 not significant H4: Partially support H5a: P -.16 p<.05 H5b: P .29 p<.01	LOE: III Institutionalized socialization efforts as well as proactive behavior by the nc improve learning. Learning experienced by nc was positively correlated with performance and js but did not change intention to quit. Efforts to improve socialization and learning for ncs should have a positive effect on transition Strengths: Large sample size, longitudinal design; multiple variable tested Weaknesses: Homogeneous sample; no control for possible moderating variables.

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Citation	Conceptual Framework	Design/ Method/Purpose	Sample/Criteria	Major Variables and Definitions; or hypotheses tested	Tools	Data Analysis	Findings/ Results	Level of evidence/ Decision for Use
Allen(2006) Do org soc tactics influence nc embeddedness and turnover? Country: United States Funding:NS Bias: None Noted	NS (Van Maanen & Schein's Theory of Organizational Socialization)	Design: Cross-Sectional Survey Method: Participants voluntarily completed electronic survey with information to link to their employee records so that turnover data could be collected in 1 year. Data analysis was promised to be confidential and no identifying data was shared with the org Purpose: To examine if different socialization tactics influence nc turnover and embeddedness	Sample: n=259 members of a large financial org; Located in 82 cities, 18 states and represent 152 different cost centers; 66% femal; mean age 35; 55% college graduates Inclusion Criteria: Employed <12 months 55 (24.8%) of the original sample had left the org within 1 year	IV 1: Collective tactics-common learning experiences with group IV 2: Formal tactics- clearly defined soc activities IV 3: Sequential tactics- sequential learning activities IV 4: Fixed tactics- information about timinig of each soc stage or step IV 5: Serial tactics- mentors or role models provided IV 6: Investiture tactics: positive social support DV 1: Turnover DV 2: Embeddedness On-the-job: Links that tie an individual to their org while they are at work. DV 3: Embeddedness Off-the-job: Links that tie an individual to their org while they are not at work.	Turnover recorded from org records; Jones' Soc Tactics Scale; Embeddedness survey by Mitchell et al,	Descriptive statistics; correlation coefficients; Hierarchal logistic regression	DV 1 IV 1 r -.08 Not significant □□□09 Not significant IV 2 r -.09 not significant □□.13 Not significant IV 3 r -.06 not significant □□.46 Not significant IV 4 r -.07 not significant □□.22 Not significant IV 5 r -.15 p <.05 □□-.83 p <.05 IV 6 r -.12 p <.05 □□-.65 p <.05 DV 2 IV 1 r .29 p < .01 □□.22 p <.01 IV 2 r .20 p < .01 □□□.12 Not significant IV 3 r .49 p < .01 □□-.08 Not significant IV 4 r .38 p < .01 □□.21 p <.01 IV 5 r .31 p < .01 □□.03 not significant IV 6	LOE: III Find a relationship between org soc tactics, like a formal orientation proram, increases on the job embeddedness which then has a negative relationship with turnover. Strengths: Strong sample, increased generalizability; strong statistical tools used; reliable, tested tools Weaknesses: Does not focus on new grads; one time point studied for all dimensions.

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							r .49 p < .01 □□.38 p <.01 DV 3 IV 1 r .-.04 not significant □□□01 Not significant IV 2 r .-.08 not significant □□□.16 Not significant IV 3 r ..04 not significant □□.09 Not significant IV 4 r ..04 not significant □□.01 Not significant IV 5 r ..02 not significant □□.09 Not significant IV 6 r ..09 not significant □□.10 Not significant Effect of DV 2 & DV 3 on DV 1 DV 2 R -.23 p < .01 □□-.87 p <.01 DV3 r -.05 not significant □□.08 Not significant	

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Citation	Conceptual Framework	Design/ Method/Purpose	Sample/Criteria	Major Variables and Definitions; or hypotheses tested	Tools	Data Analysis	Findings/ Results	Level of evidence/ Decision for Use
Klein & Weaver (2000). The effectiveness of an organizational-level orientation training program in the socialization of new hires. Country: USA Funding: NS Bias: None Noted	NS (Feldman's Theory of Socialization ; Van Maanen & Schein's Theory of Socialization)	Design: Quasi-Experimental Method: A 3-hour orientation program was offered to all full-time employees, employed less than 6 months, on a volunteer basis. Surveys were sent to all new employees prior to orientation and 1 to 2 months following orientation, regardless of orientation attendance. Purpose: To examine the impact of attending a voluntary, organizational-level new employee orientation training program on organizational soc.	Sample: n= 116; 55 experimental, 61 control; Subjects worked in 8 different departments and held 70 different job titles. 30% professional; 36% clerical; 12% technical. Had been with company mean of 87 days. 83% white; 70% female; mean 35 years-old; 41% with college degrees; 28% with advanced degrees Inclusion Criteria: High school diploma or higher; Employees with tenure <6 months, Exclusion Criteria: Employees who attended orientation prior to first survey; faculty members; instructors or student employees	H1: Employees attending orientation will be more socialized than employees not attending orientation. H2: Orientation attendance will be positive r/t affective organizational commitment. IV 1: Orientation attendance DV 1: History Dimension-knowledge of orgs traditions, customs, myths, stories and rituals DV 2: Language Dimension-employee understanding language and vernacular of org DV 3: Goals/values dimension-employees understanding of orgs mission and goals. DV 4: People dimension-degree to which employee has satisfying work relationships	Soc scale created by Chao at al.; Org commitment scale created by Allen & Meyer	Chi squared; one way ANOVA; descriptive statistics; ANCOVA	H1: DV 1 □² .25 p<.01 DV 2 □ ² .01 not significant DV 3 □ ² .06 p<.05 DV 4 □ ² .14 p<.01 DV 5 □ ² .03 not significant H2: □R^2 .00 F .10 not significant DV 1 □ .26 F 7.49 p<.01 DV 2 □ -.04 F .20 not significant DV 3 □ .31 F 11.78 p<.01 DV 4 □ .09 F 1.10 not significant DV 5 □ .01 F .02 not significant	LOE: III Findings suggest orientation attendance had a significant effect on helping newcomers learn the history as well as the goals and values of the org. It also helped promote satisfying work relationships. However, orientation attendance did not affect org commitment. Suggests that orientation attendance could positively impact transition to practice through promotion of work relationships and understanding the org culture and mission, vision and values. Strengths: Quasi-experimental design, higher level of evidence for this phenomenon; larger sample size spanning multiple professions; strong tools used with verified internal validity. Weaknesses: Non-randomization; no control for other factors that could have impacted results; employees were not necessarily new and mean time with org was close to 90 days

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				DV 5: Performance dimension-degree to which employee becomes proficient at their job				

Qualitative Research								
Citation	**Conceptual Framework**	**Design/ Method/Purpose**	**Sample/Criteria**	**Research Questions**	**Credibility/Transferability/ Dependability/Confirmability**	**Data Analysis**	**Findings/ Results**	**Level of evidence/ Decision for Use**
Kelly, Mathews (2001). Transition to first position as NP. Country: United States Funding: Grant from the Illinois league for Nursing Bias: None Noted	NS (Meleis' Transition Theory)	Design: Qualitative Descriptive-Phenomenology Data Collection: Focus group interviews Data Management: Sessions audiotaped then later transcribed; interpretation of data in debriefing meetings immediately following interviews Purpose: Obtain a better understanding of the transitional process of the graduate to the first position of NP.	Sample: n= 21; volunteer, convenience sample Inclusion Criteria: NP graduates from a Chicago university; <7 years of practice; practicing in central Illinois Exclusion Criteria: None Noted	How do NPs perceive their preparation for the transition to their new role? Are their perceived losses as well as gains in the transition to NP? What are the perceived barriers and facilitators in the transitional process to NP? What are the coping strategies perceived as most helpful in the transitional process to NP?	Credibility: Interviewers included those outside the nursing field and not involved with the project; focus groups held until saturation. Transferability: 4 separate focus groups help, although it is decreased due to geographically limited sample comprised largely of NPs in rural areas Dependability: Analysis conducted as a group and continued until a consensus was achieved Confirmability: Each finding is well supported by interview quotes	Comparative Content Analysis	Themes: Loss of control of time and privacy; sense of isolation; relationship changes and losses; role ambiguity; significant personal satisfaction of role; importance of a support network TTP often spans many years, but the first year is highlighted as the hardest. NPs feel isolated as they are treated differently than both nurses and physicians. Loss of work/life balance is common. Role ambiguity, due to large variations in NP practice, add stress and confusion to the role. Most frequently mentioned coping strategy was network of support people. Collaborating physician/NP relationship is crucial for support in transition.	LOE: V Highlights struggles of the first year of ttp. Lots of stress caused by role ambiguity and lack of clear practice guidelines Also focuses on the importance of a professional support network to ease transition. Strengths: Study design appropriate. Strong credibility and dependability. Weaknesses: Sample was small and geographically contained, limits generalizability

Key

ADN-Associates Degree in Nursing; APN-Advanced Practice Nurse; a/w-associated with; BSN- Bachelors of Science in Nursing; CCNFP-Critical Care Nurse Fellowship Program; DV-Dependent Variable; FNP-Family Nurse Practitioner; H-Hypothesis; HCP-Healthcare Provider; IV-Independent Variable; JS-job satisfaction; LOE-level of evidence; m-Months; MSN-Masters of Science in Nursing; ncs-newcomers; NGN- Newly graduated nurses; NNLI-Novice Nurse Leadership Institute; NP-Nurse Practitioner; NS-Not Stated; NSig-Not significant; org-organizational; RCT- Randomized Controlled Trial; RN-Registered Nurse; RQ-Research Question; r/t- related to; SPRING-Social and Professional Reality Integration for Nurse Graduates; soc- socialization; SO-Standard Orientation; TTP-Transition to Practice; VA-Veterans Affairs;

Citation	Conceptual Framework	Design/ Method/Purpose	Sample/Criteria	Research Questions	Credibility/Transferability/ Dependability/Confirmability	Data Analysis	Findings/ Results	Level of evidence/ Decision for Use
Korte, Brunhaver, Sheppard (2015). Interpretations of org soc: the expectations and experiences of ncs and managers. Country: United States Funding: Grants from the Center for the Advancement of Engineering Education & Stanford University Department of Engineering Bias: None Noted	NS (Van Maanen & Schein's Theory of Organizational Socialization)	Design: Qualitative Method: Case study method grounded in a naturalistic paradigm; semi-structured interviews using the "critical incidents" approach Purpose: To understand the expectations and experiences of recent graduates as they socialized into their new jobs and the related expectations and experiences of managers supervising them.	Sample: N=41 NC Engineers, 15 managers. From 3 different U.S. based organizations; NCs had graduated in the last 6 to 18 months; managers supervised 8 to 20 engineers and had previous experience supervising NCs.	What are the expectations of new engineers and their managers about the socialization process? Do the expectations of new engineers and managers differ? Why or why not? What are the actual experiences of new engineers and their managers during socialization? How do the experiences relate to their expectations? How do the interactions of expectations and experiences help or hinder the socialization process of newly hired engineers? What might be done to improve the socialization experiences for ncs and managers?	Credibility: Interviews recorded and transcribed verbatim; separate researcher confirming accuracy. Subjects interviewed 10- 12 times until saturation Prelim findings discussed with participants for feedback & confirmation Transferability: Respondents from 3 different orgs, increases ability to generalize the findings. Dependability: Clear coding process with verification by independent researcher Confirmability: All major findings are supported by direct quotes	Constant Comparative method.	Newcomer expectations: Managers should provide explicit, formal orientation and training. Managers should provide direct and meaningful guidance Managers should not be bothered or asked for help NCs expect to receive some help from coworkers and value local mentors NCs value being accepted among their peer group and appreciate efforts to help guide this acceptance. Manager expectations: NCs need to rely on more experiential, informal learning NCs want more direct guidance NCs should take more initiative	LOE: V Although out of the HCP literature, engineering is also a very technical field which requires transition from academia to reality. Study is very thorough and exhaustive and evaluates not just the experiences of the NCs but what their expectations were and what would have further helped. Also reveals some of the contrast between NC expectations and administrative expectations.

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Citation	Conceptual Framework	Design/ Method/Purpose	Sample/Criteria	Research Questions	Credibility/Transferability/ Dependability/Confirmability	Data Analysis	Findings/ Results	Level of evidence/ Decision for Use
Dyess & Sherman (2009). The first year of practice: NGNs' transition and learning needs. Country: United States Funding: None Bias: None Noted	Kramer's Reality Shock Theory	Design: Qualitative Descriptive Method: Pre and post-program focus groups using hermeneutic analysis. Focus groups asked semi-structured questions; sessions audiotaped and transcribed; coded on review Purpose: To examine the experience of NGN transition as well as their learning needs both pre and post involvement in the NNLI.+	Sample: n=81; mean age 32; 93% female; 80% in acute care settings Inclusion Criteria: ADN or BSN graduates with less than 12 months experience; Candidates agreed to complete 1 year program and an evidenced based project	What are the lived experiences of NGNs in the first year of practice? What do NGNs believe would improve transition?	Credibility: Interviews recorded and re-reviewed on multiple occasions during coding. Focus group facilitators not associated with the study. Transferability: Somewhat compromised as the NGNs surveyed were identified for their perceived leadership potential as well as willingness to participate in a year-long program. Dependability: Use of proven hermeneutic analysis Confirmability: Themes and recommendations confirmed with subject quotes	Hermeneutic Analysis	Themes: Mixed feelings of confidence and fear Less than professional communication from other HCPs Horizontal violence Feeling overwhelmed and isolated Regular complex critical decision-making Receiving contradictory information from peers Recommendations: Long term support through first year of practice Interdisciplinary communication seminars Strategies for identifying and responding to horizontal violence Regular conversations with and an open door to leadership Extended transition support for more complex specialties Consistent preceptors who focus on the positive	LOE: V Allow focusing on NGN, study not only seeks to explain the experiences of transition but also asks NGNs what would have been more helpful. Structure and mentorship are common themes throughout the article.

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Citation	Conceptual Framework	Design/ Method/Purpose	Sample/Criteria	Research Questions	Credibility/Transferability/ Dependability/Confirmability	Data Analysis	Findings/ Results	Level of evidence/ Decision for Use
Milligan, Margaryan & Littlejohn (2013). Learning at transition for new and experienced staff. Country: UK Funding: Industry-academic partnership grant Bias: None Noted	NS (Van Maanen & Schein's Theory of Organizational Socialization)	Design: Qualitative Descriptive Data Collection: Semi-Structured Interviews Data Management: Data analyzed using a grounded theory approach using codes emerging from the data. All interviews coded by a single researcher; then cross-checked by two further researchers Purpose: To improve the understand of the learning and development that occurs during initial and subsequent role transitions within knowledge intensive workplaces.	Sample: n= 30; 8 novices-less than 3 years experience, 10 mid-career workers- 3-10 years, 12 experienced workers-11 or more years. Sample included engineers, chemists, human resources and procurement specialists. Respondents from 12 different countries Inclusion Criteria: Technical and commercial professionals operating in the energy sector. Exclusion Criteria: Lack of a major role change in the previous 3 years	RQ1-What are the learning experiences of new and more experienced workers undergoing transition? RQ2- What are the org soc experiences of new and more experience workers?	Credibility: No mention of interviewing until saturation was reached; peer debriefing used. Transferability: Although individuals from one country, they are from variable professions and countries Dependability: Coding was done using grounded theory approach by one researcher and verified by two researchers Confirmability: Findings confirmed by direct subject quotes.	Grounded Theory Approach	RQ 1 Eight modes of learning emerged: Formal learning (classroom, online, etc); learning by doing; Learning by discussing with others; mentoring; learning by teaching; observation; trial and error; self-study Novices utilized formal learning; observation and learning by doing as top 3 methods. Novices recognized link between formal and experiential learning as the only way they could make sense of formal learning. Half of the novices reported learning much from their mentor and felt it was a valuable part of their transition. Few of the experienced workers were assigned a mentor. RQ 2 Induction (Orientation) was highly valued by novices as provided a critical role to experience a larger understanding of the organization. Three components of orientation which were most important: formal learning; learning by doing/observation; social networking. Experienced workers were not assigned to formal orientation programs cited frustration with no time set aside for learning their new	LOE: V Highlights transition of both novice and experienced workers in transition. Important concept for APPs as many will be experienced in the healthcare field but will be experiencing large role transition. Small sample size limits generalizability.

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							role. Both novices and experienced workers recognized the value in a mentor to use as a resource person when experiencing difficulties. Both groups also realized the importance of social networking as a way to integrate into the organization and recognized their transition would have been more difficult without these efforts	

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Appendix B

Table 2

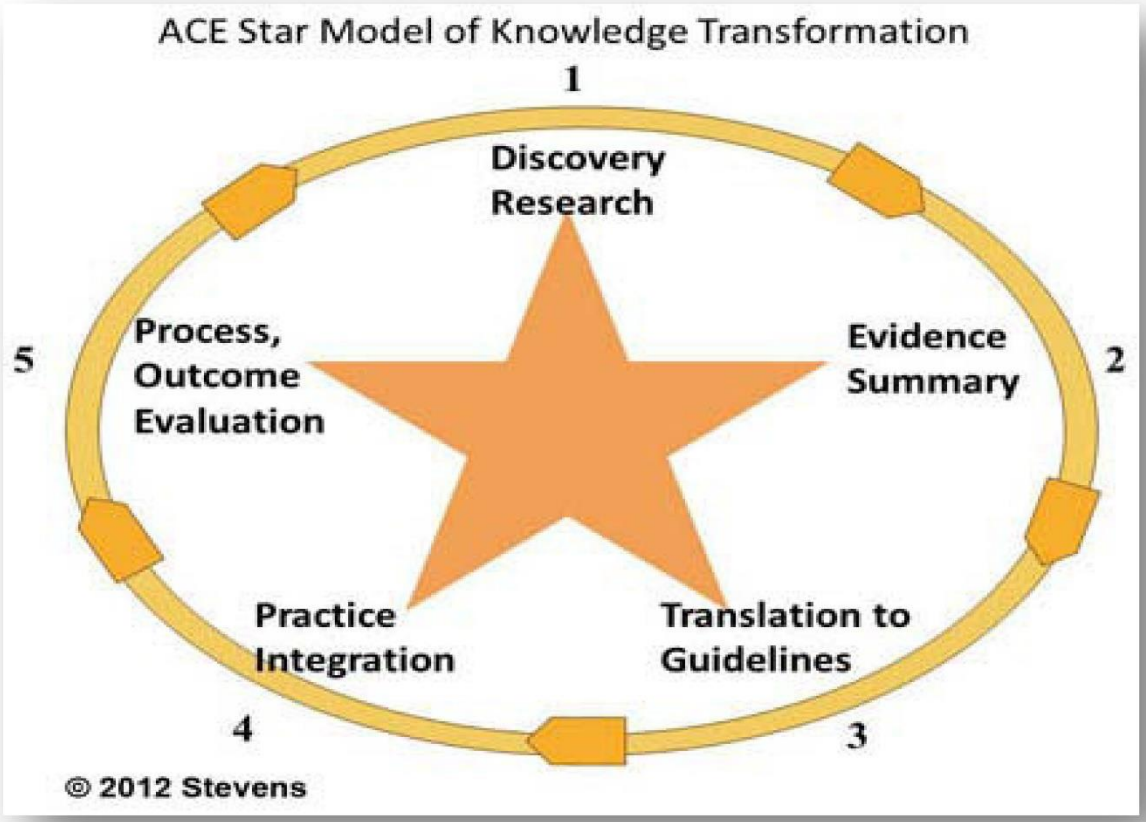
Synthesis Table

Author	Rush	Barnes	Newhouse	Strauss	Friedman	Ashforth	Allen	Klein	Kelly	Korte	Dyess	Milligan
Year	2015	2015	2007	2016	2011	2007	2006	2000	2001	2015	2009	2013
Domain												
Healthcare	x	x	x	x	x				x		x	
Business/Other						x	x	x		x		x
Study Design												
Cross-Sectional Survey	x	x		x			x					
Quasi-Experimental			x					x				
Longitudinal Survey						x						
Retrospective-Descriptive					x							
Qualitative-Focus Group									x		x	
Qualitative-Semi-Structured Interview										x		x
Sample												
n	245	352	73/237/212	79	90/30/60	150	259	55/61	21	41/15	81	30
APPs		x							x			
Nursing (non-APPs)	x		x	x	x						x	
New Graduates	x	x	x	x	x				x	x	x	x
Newcomers (not NGs)						x	x	x		x		x
Intervention												
Formal Orientation	x	x	x	x	x							
Institutionalized Soc						x	x	x				

Author	Rush	Barnes	Newhouse	Strauss	Friedman	Ashforth	Allen	Klein	Kelly	Korte	Dyers	Milligan
Outcomes												
Transition Score	↑	↑										
Retention			↑	↑	↑							
Turnover					NSig		↓					
Org Commitment/Embeddedness			NSig			↑	↑	↑				
Sense of Belonging/Good Work Relationships			NSig					↑				
Job Satisfaction				↑		↑						
Job Performance/Adaptability				↑				NSig				
Length of Employment					↑							
Turnover Intention			↓			NSig						
Level of Soc						↑		↑				
Descriptive Themes												
Loss of Control/Feeling Overwhelmed									x		x	
Sense of Isolation									x		x	
Importance of guidance and feedback									x	x	x	x
Benefit of structure to transition										x	x	x
Value of orientation efforts										x	x	x
Importance of peer relationships									x	x	x	x
Importance of Consistency									x	x		
Need ongoing support											x	
Learn by doing									x	x	x	x
Importance of/learn from mentors									x	x	x	x

Appendix C

Figure 1. ACE Star Model of Knowledge Transformation



Appendix D

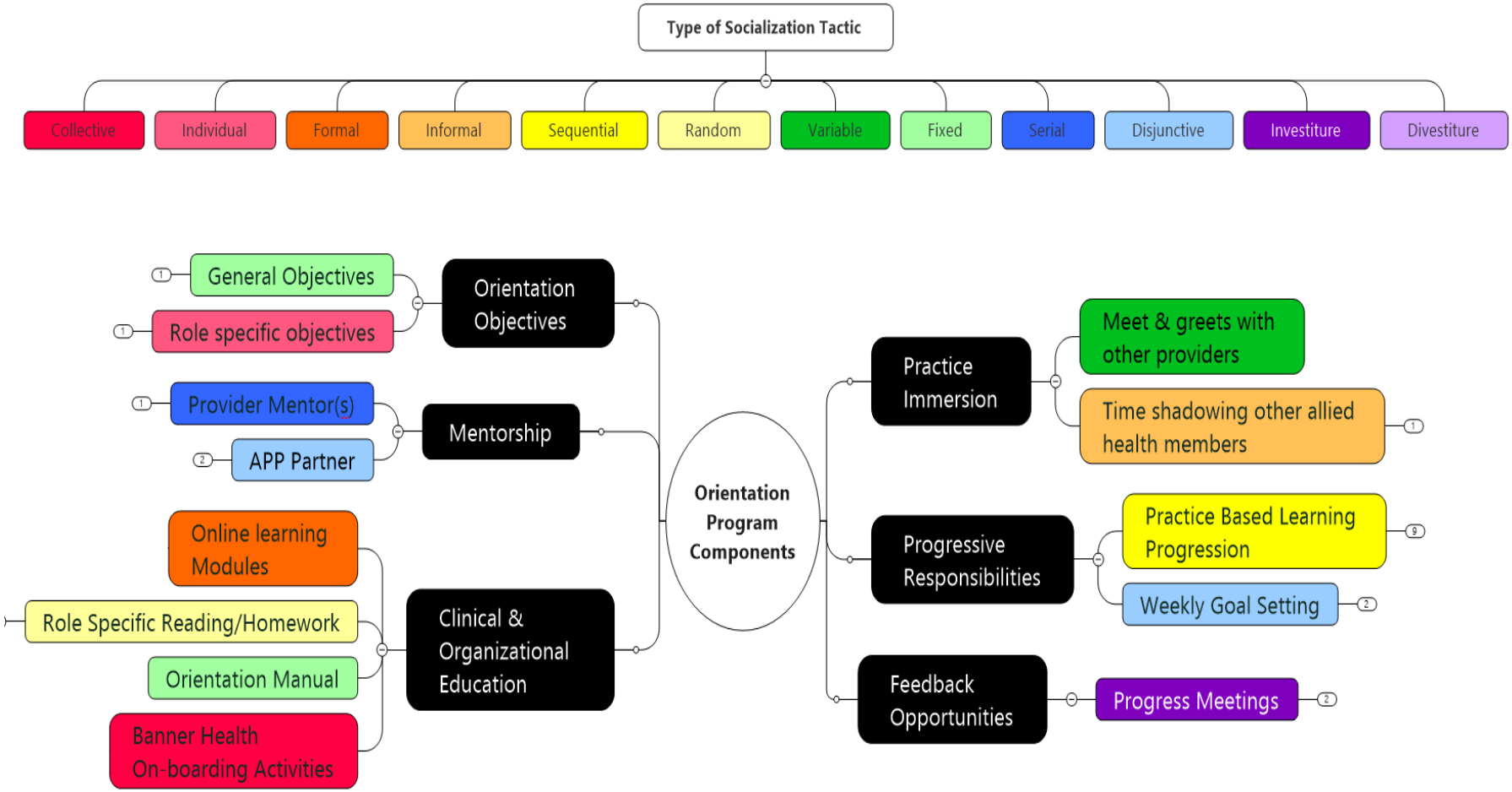
Table 3

Van Maanen & Schein's Socialization Tactics

Tactic Producing Custodial Role Response	Tactic Definition	Tactic Producing Innovative Role Response
Collective	Newcomers have common experiences as a group in collective tactics, or are left to have unique individual experiences	Individual
Formal	If using formal tactics, newcomers are given specific experiences tailored for them, separate from the day to day work of others; or, in informal tactics, are placed into the day to day environment and learn as they go	Informal
Sequential	Sequential tactics include giving Newcomers a progression of steps during the socialization period with a clearly prescribed path; or while random tactics do not have a clear progression plan	Random
Variable	Fixed socialization tactics are performed on a given timeline and are similar for all newcomers; variable activities are tailored to the unique needs and experiences of the newcomer	Fixed
Serial	Serial tactics include exposing newcomers to experienced mentors; while disjunctive tactics allow the newcomer to "make their own way"	Disjunctive
Divestiture	Investiture reinforces the newcomers self-identity and provides social and organizational support. Divestiture strips away self-identities then builds them back up in terms of the organization.	Investiture

Appendix E

Figure 2. MindMap of Program Components and Socialization Tactic Type



Appendix F

Figure 3. Orientation outline including objectives and progression

DIVISION OF SURGICAL ONCOLOGY
BANNER MD ANDERSON CANCER CENTER

APP Orientee: PA-C

Provider Mentor(s): AGNP

MD

APP Partner: PA-C

Primary Focus: Urology

GENERAL COURSE OBJECTIVES: At the end of the 12-week training period, the new APP will:

1. Be proficient at correctly performing history and physical assessment.
2. Be proficient at communicating H&P findings with other providers.
3. Develop appropriate diagnostic and therapeutic management plans for both acute and chronic conditions as appropriate in the care of the oncology patient.
4. Become proficient at timely documentation of clinic visits in alignment with BMDACC Documentation Completion Guidelines
5. Become proficient at appropriate billing and/or coding of clinic visits and procedures in alignment with BMDACC Coding Completion Guidelines
6. Become proficient at correctly ordering the appropriate laboratory and diagnostic studies
7. Correctly refer patients to appropriate consult services, including medical oncology, radiation oncology, surgical oncology, pain management or integrative medicine.
8. Become proficient at navigating and using Cerner.
9. Be able to identify basic resources available within the cancer center and Banner as a whole.
10. Understand appropriate scope of practice in relation to state and federal laws and regulations, as well as Banner bylaws.

ROLE SPECIFIC COURSE OBJECTIVES: At the end of the 12-week training period, the new APP will:

Prostate Cancer

1. Understand the basic presentation and epidemiology of patients with prostate cancer
2. Understand accepted screening practices, and intervals, for prostate cancer in both patients with a prostate and those who are post prostatectomy.
3. Understand the initial approach to a patient with elevated PSA and/or suspicion of prostate cancer
4. Begin to understand how to appropriately stage a patient diagnosed with prostate cancer.
5. Begin to understand Gleason scoring and TNM staging of prostate cancer
6. Begin to understand the typical metastatic pattern of prostate cancer.
7. Begin to understand the different treatment options for a patient presenting with prostate cancer.
    a. Surgery
    b. Radiation
    c. Hormonal & Anti-neoplastic therapies
    d. Active Surveillance
8. Understand the basic indications for surgical intervention in the patient with prostate cancer.

   a. Resectability
   b. Performance Status
9. Begin to understand the different surgical options for a patient with prostate cancer.

Bladder Cancer

1. Begin to understand the epidemiology, initial presentation and risk factors for bladder cancer.
2. Understand the initial work up for bladder cancer.
3. Begin to understand the treatment options for bladder cancer.
4. Begin to understand the indications for surgical intervention, and different operative approaches for the patient with bladder cancer.
5. Begin to become familiar with caring for a urostomy.
6. Be aware of the current clinical trial BMDA offers for bladder cancer

Renal Cell Carcinoma

1. Begin to understand the differential for a newly diagnosed kidney lesion, including characteristic features of a renal cell carcinoma (RCC).
2. Understand the basic epidemiology and risk factors for development of RCC.
3. Understand the initial work-up and treatment for RCC.
4. Understand the indications for surgery in a patient with RCC and begin to understand the different operative approaches.
5. Begin to understand the possible short and long term complications of nephrectomy.

Testicular Cancer

1. Begin to understand the differential for a newly diagnosed scrotal/testicular mass.
2. Begin to understand the basic epidemiology and risks factors for testicular cancer.
3. Begin to understand the initial work-up and treatment, including the role of surgery, in the patient with testicular cancer.

General Urology & Surgical Management

1. Continue to develop skills as a surgical first assistant.
2. Understand the basic work-up and management of benign prostatic hypertrophy
3. Begin to understand the potential causes of and treatment approach to erectile dysfunction.
4. Understand the basic work-up and approach to hydronephrosis.
5. Understand the basic work-up and approach to hematuria, both frank and microscopic
6. Understand management of indwelling urinary catheters and the role of voiding trials
7. Understand indications for, ordering of and management of continuous bladder irrigation
8. Become familiar with indications for and management of nephrostomy tubes
9. Become familiar with indications for and management of ureteral stents
10. Become familiar with appropriate pre-operative education and orders including:
    a. Appropriate pre-operative testing & clearance
    b. Appropriate Bowel Prep
    c. NPO Guidelines
    d. SCIP Guidelines and appropriate antibiotics
11. Understand the basic post-operative care of a patient after abdominal surgery:
    a. Fluid & Electrolyte Management
    b. SCIP Guidelines & appropriate antibiotics
    c. Pain Control

   d. Drain & Wound Management
      i. Management of clean vs contaminated vs dirty wounds
   e. DVT & Pneumonia Prophylaxis
   f. Nutrition & Bowel management
12. Understand the basic initial work up and management of post-operative alarm symptoms:
   a. Hypotension
   b. Change in Mental Status
   c. Hypoxia
   d. Decreased Urine Output
   e. Tachycardia
   f. Bleeding
   g. Fever
13. Understand the more common short and long term complications of urologic surgeries, including their presenting symptoms and initial work up and management:
   a. Infection
   b. Ureteral Stricture
   c. Fistula
   d. Adhesions and Obstruction
14. Understand the initial approach to the patient with bowel obstruction and the difference between small and large bowel obstruction.
15. Understand the initial workup and management of a patient concerning for acute abdomen.
16. Begin to understand the various treatment options for acute and recurrent UTIs in cancer patients.
17. Begin to understand the various treatment options for urinary incontinence

RECOMMENDED READING/RESOURCES :

1. Physician Assistants: AZ Regulatory Board of Physician Assistants Revised Statutes for PAs. https://www.azpa.gov/Statutes-Rules/PA%20Statutes.aspx
2. Up-To-Date
3. **Wieder's Pocket Guide to Urology 5th-edition**
4. MD Anderson Surgical Oncology Handbook
5. Smith & Tanagho's General Urology
6. Weekly reading assignments to be provided by mentors

REQUIRED ONLINE MODULES:

1. All Banner Learning Center Modules
2. Cerner Training
3. MD Anderson Modules https://cms.mdanderson.org/access/content/group/250bac46-a90e-4b26-9eed-7dc6ff6b40f1/content/cmeDisclosure.html
4. CITI Training: www.citiprogram.org

WEEKLY PROGRESSION:

This progression is intended to serve as a guide for how you will begin to master different aspects of our practice over the next twelve weeks. Depending on different factors within the practice, you may progress quicker or slower in each area. This is a general template. To see true progression, you are expected to set a goal each week and share with your mentor. We will discuss these goals further in your first orientation meeting.

Week One: "Getting Organized"

APP TRANSITION TO PRACTICE

- Attend required on- boarding meetings.
- Meet with Leader to review orientation objectives
- Become familiar with different clinical and administrative spaces on campus.
- Organize cubicle space, and inform AA's of needed supplies.
- Obtain Cerner, Outlook, Banner Learning Center and EMSS access.
- Get Pager, or have cell phone set up for web paging
- Obtain recommended articles from supervisor
- Provide supervisor and AA's with contact info
- Obtain contact lists from AA's
- Review Orientation Manual
- Order lab coats, order business cards, Obtain scrub machine access.
- Complete any required Banner Learning Center Modules
- Complete any required CITI training
- Complete MD Anderson CME Modules
- Complete any outstanding credentialing/privileging paperwork.

Week Two, Three & Four: "Learning Clinic"

- Shadow providers in clinic as assigned
- Learn how to navigate Cerner outpatient module
- Learn proper note type and documentation guidelines from preceptors, refer to BMDACC documentation and Coding Guidelines in Orientation Manual as needed
- Begin to understand billing practices and order entry
- Slowly begin to incorporate order entry and documentation into practice as appropriate
- As appropriate and as delegated, begin to obtain history and physical on patients, discuss differential diagnoses and plans with preceptor
- Complete any assigned reading or "homework" as delegated by preceptors
- Attend GU Tumor Board
- Attend all appropriate division or APP meetings.
- Complete any pending week 1 items
- Week 4-Meet with Leader & Mentors for orientation check-in

Week 5-10: "Putting it All Together"

- Work with preceptors to start to determine appropriate treatment plans, how you would document, etc.
- Identify how to place appropriate orders in Cerner
- Each week increase number of patients you are seeing in conjunction with preceptors in both clinic and the inpatient setting, report physical findings, differential diagnosis and plan to preceptor for feedback.
- Begin to develop accurate differential diagnoses and treatment plans for common patient presentations
- Continue to work on order entry, documentation and billing accurately.
- By week six, you should be able to do a complete note on a common presentation, with little feedback from your preceptor.
- Become more comfortable discussing pathological findings and treatment plans with patients.
- Each week should show some progression in knowledge and comfort level
- Complete any assigned reading or "homework" as delegated by preceptors
- Attend GU Tumor Board.
- Attend all appropriate division or APP meetings.
- Week 7 & 10-Meet with Leader & Mentors for orientation check-in

Weeks 11-12 "Go Live Weeks"

- Plan to begin to see patients independently in clinic, with mentor and collaborating provider feedback as needed
- Continue to work on all unmet objectives above.
- Meet with Leader & Mentors to complete end of orientation evaluation

Appendix G

Figure 4. Mentor Guidelines

Tips for Effective Mentoring

Thank you for agreeing to help mentor the newest member on your team. New APPs are motivated and want to learn, they just need someone to guide them into the correct space. Below are some tips to help make sure you both get the most out of this relationship and that the APP can be successful at our center.

- **There is no such thing as too much communication.**
  - The more you are accessible, approachable and honest, but not harsh, the more the APP will benefit and feel comfortable to learn.
- **Set clear expectations and goals each week, and more often as necessary.**
  - If you refer to the APP's orientation plan that you were given, you will see an expected timeline for progression. This should provide you with an appropriate pace for your mentee, and prevent frustration on your part.
  - Work with your mentee each week to determine appropriate goals and let them know your expectations for what they should be handling.
- **Let your mentee share in your passion.**
  - What keeps you motivated at work? Share your passion for that with your mentee. They will benefit in seeing your enthusiasm and it will inspire them to find their own niche over time.
- **Try to connect personally**
  - Mentees need to connect to feel safe and that someone within the organization cares for their growth and development. Knowing them personally will allow mutual respect to be built.
- **Trust your mentee.**
  - Mentees need to feel trusted to grow. They need the space to forge their own path, give them that room. Let them come up with their own care plans, and intervene when it is appropriate. The sooner you allow the APP to grow the sooner they will be able to become a critical member of your team.
  - Make sure you find the correct balance between independence and collaboration. Allow the APP to do the portions of the care that they feel comfortable with, but until they are versed in management, collaborate with them in developing the plan of care.
- **Convey knowledge in an interesting way.**
  - Critical thinking is so much more than recalling anatomy or differential diagnosis from memory. When a mentee asks questions, don't just answer them. Try to find a way to pose the question back to the APP so that they have to critically think through it.
  - Look ahead in your schedule, if you see a new diagnosis, have the APP do some reading beforehand about that diagnosis. Ask them to give you a five-minute synopsis before you see the patient.
- **Lead by example.**
  - Intimidation is not routinely a part of APP training and as such, they will not respond well to it. Try to be a role model instead of just a teacher or a boss.
  - Be cognizant of your interactions with others as well. If you expect your mentee to be respectful of your whole team, you should be as well.

Appendix H

Figure 4. Complete Survey

Screening Questions to Determine Inclusion/Exclusion

1) Is this your first role as an advanced practice provider?

   Yes

   No

2) Have you participated in any post-graduate training program (APP residency or fellowship)?

   Yes

   No

TCM Affective Commitment Scale

Instructions

Listed below is a series of statements that represent feelings that individuals might have about the company or organization for which they work. With respect to your own feelings about Banner Health, please indicate the degree of your agreement or disagreement with each statement.

1 = strongly disagree

2 = disagree

3 = slightly disagree

4= undecided

5 = slightly agree

6 = agree

7 = strongly agree

1) I would be very happy to spend the rest of my career with this organization.

2) I enjoy discussing my organization with people outside it.

3) I really feel as if this organization's problems are my own.

4) I think that I could easily become as attached to another organization as I am to this one.

5) I do not feel like 'part of the family' at my organization.

6) I do not feel 'emotionally attached' to this organization.

7) This organization has a great deal of personal meaning for me.

8) I do not feel a strong sense of belonging to my organization.

Perceived Organizational Support Scale

Listed below is a series of statements that represent feelings one might have with regards to their organization. With respect to your own feelings about Banner Health, please indicate the degree of your agreement or disagreement with each statement.

Likert Scale 1-7, 1=Strongly Disagree and 7= strongly agree

1) My organization values my contribution to its well being
2) My organization fails to appreciate any extra effort from me
3) My organization would ignore any complaint from me
4) My organization really cares about my well-being
5) Even if I did the best job possible, my organization would fail to notice
6) My organization cares about my general satisfaction at work
7) My organization shows very little concern for me
8) My organization takes pride in my accomplishments at work

Perceived Competence Scale

Please respond to the following statements in terms of how true they are for you as an APP.

Likert Scale, 1-7, 1=not at all true, 7=very true

1) I feel confident in my abilities as an advanced practice provider
2) I am capable of caring for complex patients.
3) I am able to function as an active member of my clinical team.
4) I feel able to meet the needs of my patients

Role Ambiguity Scale

With respect to your role as an APP, please indicate the degree of your agreement or disagreement with each statement.

Likert Scale 1-7, 1=Strongly Disagree and 7= strongly agree

1) I know exactly what is expected of me.
2) I know that I have divided my time properly
3) I have a clear explanation of the work to be done.
4) I feel certain about how much authority I have
5) I know what my responsibilities are
6) Clear, planned goals and objectives exist for my job.

Demographic Survey

1. Are you a: Nurse Practitioner Physician Assistant
2. Which Banner entity is your primary practice site:

   Banner MD Anderson Cancer Center

   Banner Medical Group

   Banner University Medical Group

   Another Banner Entity
3. Which setting do you work in: Primary Care Setting Specialty Care Setting
4. When did you complete your formal APP education program:

   In the past 6 months

   Greater than 6 months ago but less than 12 months

   >12 months ago
5. Sex: Male Female

6. Age:

7. Race: Caucasian African American Hispanic/Latino Native American Other Prefer not to answer

8. Did you work in healthcare prior to your role as an APP: Yes No

    a. If yes, in which role:

    b. For how many years did you previously work in health care:

Appendix I

Table 4

Demographics of Sample

	Full Cohort N=17	Intervention Cohort N=5
Profession		
Nurse Practitioner	10 (58.8%)	2 (40%)
Physician Assistant	7 (41.2%)	3 (60%)
Sex		
Male	4 (23.5%)	1 (20%)
Female	13 (76.5%)	4 (80%)
Average Age	32 (± 5.44)	29.8 (±5.35)
Previous Healthcare Experience	12 (70.6%)	2 (40%)
Time Since Graduation		
<6 Months	4 (23.5%)	0 (0%)
6 Months to 12 Months	6 (35.3%)	4 (80%)
>12 Months	7 (41.2%)	1 (20%)
Practice Setting		
Primary Care	5 (29.4%)	0 (0%)
Specialty Care	12 (70.6%)	5 (100%)
Race		
Caucasian	15 (88.2%)	4 (80%)
African American	1 (5.8%)	0 (0%)
Latino/Hispanic	1 (5.8%)	1 (20%)

Appendix J

Table 5

Assessment Tool Mean Scores and Ranges

	Intervention Cohort N=5	Non-Intervention Cohort N=12
MeanTCM-ACS Score	46.2 (+4.34)	32.9 (+10.59)
TCM-ACS Min-Max	40-51	11-47
Mean POSS Score	49.8 (+4.60)	32.6 (+11.66)
POSS Min-Max	44-55	9-48
Mean PCS Score	23.6 (+2.30)	22.2(+4.43)
PCS Min-Max	22-28	14-28
Mean RAS Score	35.0 (+2.54)	31.7 (+5.91)
RAS Min-Max	32-39	22-41

Appendix K

Table 6

Mann-Whitney U Results

Assessment Tool	Cohort	Median	Z	p
TCM Affective Commitment Scale			-2.538	.009
	TTP	45.0		
	Non-TTP	34.0		
Perceived Organizational Support Scale			-2.747	.004
	TTP	48.0		
	Non-TTP	32.5		
Perceived Competence Scale			-.053	.959
	TTP	22.0		
	Non-TTP	23.5		
Role Ambiguity Scale			-1.426	.160
	TTP	35		
	Non-TTP	31.5		